Teaching Statement

Ryan Giordano

September 2021

I think of teaching, like writing and oral presentations, to be an important part of my research rather than a distraction from it. Careful, empathetic exposition of complex ideas is, of course, necessary for reasearch to reach a wide audience. But, even more, the very act of teaching well forces the teacher to refine and examing their ideas. The benefits of thoughtful teaching are particularly great in a field like statistics, where it can be much harder to truly understand the fundamental concepts (hypothesis testing, Bayes rule, randomness in the real world) than it is to simply mechanically apply the mathematical tools of the trade.

Accordingly, I have had a lifelong passion for teaching. In addition to working as a university-level teaching assistant both as an undergraduate in engineering and as a doctoral student in statistics (for which I received a university teaching award), I was a full-time teacher for two years at the middle and elemenatary school level as a Peace Corps volunteer in Kazakhstan teaching math and ESL. During the Peace Corps, I also wrote a textbook and organized and participated multiple extracurricular classes for my community, in math, music, and in pedagogy itself for Kazakhstani teachers of ESL. As a PhD student, I volunteered for a year and a half teaching math courses to inmates at San Quentin prison with the Prison University Project.

Many of my extra-curricular activities, though not explicitly in a classroom, have had a teaching component. I have acted as a formal and informal mentor to numerous PhD students, both as part of the student mentorship program at UC Berkeley and as a postdoctoral researcher at MIT. At Google, I acted as an official mentor for several junior engineers. For most of my PhD, I organized and conducted my own reading group for any interested students on topics including variational Bayes, Bayesian nonparametrics, differential geometry, the bootstrap, and functional analysis. Consulting often has a pedagogical component to it; I participated in the UC Berkeley statitsical consulting class, provided statistical consulting as a fellow in the Berkeley Institute of Data Science, and consulted professionally, including participating for several years in Berkeley's chapter of the National Security Agency Statistical Advising Group.

Good teaching is an art that is never perfected. Over the years I have made many missteps, learned from at least some of my mistakes, and will continue to learn for the rest of my life. For the remainder of the essay, I will discuss some principles that I have come to believe make for good teaching and a little bit

about the context.

Stories I want to tell

Have a plan

Motivate the material

Focus on the student